Before the
Federal Communications Commission Washington, D.C. 20554

In the Matter of	)	
Toll Free Assignment Modification		WC Docket No. 17-192
Toll Free Service Access Codes	)	CC Docket No. 95-155

REPLY COMMENTS OF 800 Response Information Services LLC

These Reply Comments are submitted on behalf of 800 Response Information Service LLC ("800 Response")[1] in response to initial comments filed to the *Notice of Proposed Rulemaking ("NPRM")* released September 28, 2017, in the above-referenced docket.

In the *NPRM*, the Federal Communications Commission (Commission) seeks input on a variety of proposed modifications to the procedures for assigning Toll Free Access Codes, including the auctioning of toll free numbers. 800 Response opposes the institution of auctions for toll free numbers and urges the Commission to refrain from replacing the existing procedure, which has proven to be equitable and effective in recent years.

I. SHOULD THE COMMISSION DECIDE TO PROCEED WITH AN AUCTION APROACH TO ALLOCATING TOLL FREE NUMBERS, RESP ORGS SHOULD BE EXCLUDED FROM THE PROCESS.

[1] 800 Response has been providing Shared Use toll free service for almost 30 years. It is an active member (and co-chair) of ATIS SNAC, and worked closely with Somos, Inc. and ATIS SNAC in developing the procedures used for the release of the 855 and 844 toll free code openings.

In its Appendix A, the NPRM theorizes that Resp Orgs may have a special role to play in the auction of toll free numbers. It discusses how potential bidders determine the value of toll free numbers, and suggests that valuations may be idiosyncratic and particular to the specific bidder. This is generally the case in the auctions under consideration here, as potential users of toll free numbers are likely to come from a wide spectrum of the business community, each with a unique plan for monetizing the toll free asset.

The Appendix then proceeds to discuss a model in which Resp Orgs would acquire numbers and serve as brokers, profiting on the sale to an end-user Subscriber. However, it is not clear why it is in the public interest to create this opportunity for Resp Orgs to warehouse numbers and profit on their subsequent sale to their end-user Subscribers. The Appendix assumes Resp Orgs have some innate ability to arrive at valuations for toll free numbers which are only slightly affected by uncertainty. But that would require an intimate understanding of the financial environment, business plans, and associated toll free applications for hundreds or thousands of different businesses operating in a multitude of industries in widely diverse geographic markets. There is no basis for ascribing such insight and knowledge to Resp Orgs. The Resp Orgs most likely to participate would be those seeking to profit from their eligibility to participate directly in the auctions; an eligibility which their potential customers would not enjoy. These Resp Orgs would be incented to obtain and warehouse large blocks of numbers, to be sold profitably to end-user Subscribers in the future, if and when the latter develop requirements for specific numbers.

Another problem with the suggested approach is that limiting auctions to Resp Orgs, as both commenters have proposed, would impose inordinate costs on the industry, as both Verizon

and Century Link have explained in their initial comments.[2] Participating Resp Orgs would be forced to invest large amounts in developing systems, hiring and training personnel, informing and educating customers (and potential customers) of the rules, procedures, and strategies for submitting bids, financial arrangements to assure that winning bidders pay for the numbers they requested, and more. With 474 Resp Orgs, the costs of participating, which are likely to be passed along to Toll Free End Users in one way or another, would be excessive and would more than likely offset any financial benefit to be derived from an auction. This would be particularly onerous should the Commission direct the use of an auction on a test basis, requiring the up-front Resp Org investment regardless of whether future auctions were to be held.

Moreover, Resp Orgs which do not have the financial or human resources to participate in an auction would be competitively disadvantaged, to the extent their customers who desire to bid on numbers would be forced to approach other Resp Orgs. Participating Resp Orgs would undoubtedly seek to leverage the opportunity to capture more of their new customers' business, at the expense of the latter's existing Resp Orgs. While smaller Resp Orgs are able to compete in the market today, the institution of auctions would give larger Resp Orgs an advantage which is likely to be leveraged to the detriment of their smaller Resp Org competitors and competition in general.

To preserve competition in the marketplace, and avoid the imposition of steep costs on Resp Orgs, any auction of toll free numbers should be limited to end-user customers, and be administered by a professional auctioneer. This step would remove the responsibility and costs from the shoulders of Resp Orgs, and eliminate the opportunity for Resp Orgs with greater financial resources to pursue customers of smaller Resp Orgs. Finally, preventing Resp Orgs

[2] See WC Docket No. 17-192 CC Docket #95-155: comments of Century Link, page 2; comments of Verizon pages 2-4.

from participating in auctions would also address two other potential problems. First, it would avoid situations in which Resp Orgs, possibly unbeknownst to their customers, are bidding against them, either on their own behalf or on behalf of another customer. Second, it would enable the Commission to retain the warehousing rules which prohibit Resp Orgs from reserving numbers unless requested to do so by a customer. While there are some widely known cases of serious abuse of the warehousing rules, the rules are still respected by a large majority of Resp Orgs. Removing the prohibition would lead to far more pervasive warehousing.

II. THE SINGLE ROUND SEALED-BID VICKREY AUCTION WOULD BE AN INNAPROPRIATE AND COUNTER-PRODUCTIVE METHOD OF ALLOCATING TOLL FREE NUMBERS

The single round sealed-bid Vickrey auction was proposed by the Commission because "such auctions are relatively easy to implement and to bid in and, therefore, less costly to both the auctioneer and participants than more complex multi-round auctions."[3] Only two commenters have supported the use of the single round sealed-bid Vickrey auction described in the NPRM as a methodology for auctioning the 17,000 mutually exclusive 833 numbers.

In fact, the Vickrey auction favors participants with strong financial resources. A participant with adequate funds could identify the numbers it would like to secure, and bid on all of them. It would benefit from whichever auctions it wins because it would know that the price paid (the second highest amount bid) would be less than the price it was willing to pay for each number secured. On the other hand, a participant without strong financial resources is constrained in that it cannot risk bidding significantly more than the total amount it is able to spend. At the end of the day, it could lose every auction and not succeed in securing a single

[3] NPRM, para. 13

number even if the amount it had been willing to spend was far more than the winning bid for most of the numbers it pursued. This would not be the case in an open auction in which it could study what is transpiring in all of the auctions in which it is participating, drop out of some, and concentrate its resources on others to assure that it obtains one or more numbers which meet its needs.

The only way Vickrey auctions could give smaller businesses, which are most likely to be the ones with less financial resources, the ability to compete would be to space the auctions so that participants would know whether they had won one before having to place their single bid in the next. But with 17,000 numbers to auction, this is totally impracticable. Even spacing the auctions an hour apart would require close to ten years to complete the process.[4]

In this respect, the auction of toll free numbers would be very different from the spectrum auctions held previously, pursuant to Commission rulings. The amount of electromagnetic spectrum is fixed and the number of spectrum licenses is relatively small, which is the opposite of a numbering resource like new area codes. In auctioning spectrum, Congress and the Commission recognized the need to level the playing field by adopting bidding credits for certain *bona fide* designated entities ("DEs") – e.g., rural service providers and small, minority and woman-owned businesses, in order to reduce the chances that the dominant players would be unduly enriched, and to provide under-served consumers with competitive offerings.[5]

Because spectrum auctions involve a much smaller number of markets, DEs could select one or a few markets, and focus their efforts and resources accordingly. The use of bidding credits in toll free auctions might mitigate financial bias against smaller business, however, as

[4] The calculation assumes auctions are limited to times when business hours overlap on both the east and west coasts, i.e. approximately six hours a day and 250 business days per year, resulting in 1,500 auctions over the course of a year.

[5] 47 U.S.C §§ 309(j)(4)(E); see also id. 309 (j)(3)(C) during the auction process.

explained above, the proposed Vickrey auction method is inherently biased against small businesses. To enable smaller players to compete effectively in an auction, the bidding would have to be public, with enough time for all participants – not just those with the resources to assign teams to the process – to be able to continually reassess their success with respect to the numbers of greatest value to them, and reallocate resources as necessary to maximize their likelihood of winning the auctions for at least some of those numbers

It should be noted that, were the open auction methodology to be employed, it would not be practical to require bidders to place bids through Resp Orgs. Bidders would require real-time information on the status of every auction, as well as the ability to place bids quickly, especially toward the end of the auction period. Involving the Resp Orgs in the process would not only impose substantial additional costs on all involved, but the associated delays would undermine the integrity of the auction process.

In addition to the above, 800 Response incorporates in our reply comments the attached economic analysis, prepared at our request by Malcolm Ainspan.

III. TOLL FREE NUMBERS SHOULD NOT BE SET ASIDE FOR GOVERNMENTAL AGENCIES, NON-PROFIT HEALTH, SAFETY, EDUCATION, OR OTHER NON-PROFIT ORGANIZATIONS.

In the almost 30 years since the Commission opened toll free service to competition there have been only a handful of situations in which it has deemed the circumstances sufficiently compelling to reassign a toll free number from an existing Subscriber to an organization that provides health, safety, or government service. This fact alone demonstrates that the Commission's existing procedures are more than adequate for effectively addressing such a situation should one arise in the future.

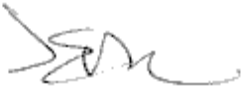
At the same time, the absence of initial comments from organizations representing nonprofits or governmental bodies strongly suggests that there is little interest in or need for a set-aside. This is not surprising given that thousands of nonprofits and governmental agencies already utilize toll free numbers (many of which are vanity numbers) to communicate with the public.

A set-aside, as discussed in the Notice, and supported by Comet Media, Inc., would require an entirely new regulatory regime to administer the program. According to the National Center for Charitable Statistics, there are currently over 1.5 million nonprofits registered in the United States. Determining which organizations qualify for a set aside would be a monumental task, rife with opportunities for abuse by unsavory operators prepared to illegally secure numbers for subsequent reassignment.

IV. CONCLUSION

The Commission should direct Somos to release the 17,000 mutually exclusive toll free numbers in a "first-come, first served" process as was done with the 844 and 833 code releases. Should the Commission nevertheless decide to proceed with an auction, the auction should be limited to end-users; Resp Orgs should not be permitted to participate. Any auction should be conducted as an open auction; the sealed bid Vickrey approach should be rejected. Finally, the setting aside of numbers for nonprofits and governmental bodies does not appear warranted.

Respectfully submitted,



John Evancie | Vice-President

Comments by Malcolm Ainspan[1]

Attachment to Reply Comments of 800 Response Information Services LLC

December 12, 2017

The comments below are intended to provide support for the Reply Comments of 800 Response Information Services LLC ("800 Response"). 800 Response opposes instituting auctions for toll-free numbers, and supports the Commission's preserving the existing "first-come, first-served" approach to assigning these numbers. These comments will discuss the disadvantages associated with Vickrey Auctions in particular and explain why they are not appropriate for the 17,000 toll free numbers set aside from the 833 code release.

As indicated in the Reply Comments, one concern arising from any auction approach relates to the implication of the set of financial and human resources needed to participate in an auction. The lack of such resources by smaller Responsible Organizations ("Resp Orgs") places them at a potential competitive disadvantage relative to the larger Resp Orgs that possess such resources and can leverage them to the smaller Resp Orgs' detriment, thereby reducing overall market competitiveness. The resource requirements for auction participation and implementation are a feature of many auction markets, including the Commission's own spectrum auction and auctions for electricity capacity at both the Federal and state levels. Moreover, auctions often entail significant transactions costs associated with auction administration and monitoring activities required to ensure competitive outcomes. Experience from other auctions suggests that, in the absence of such monitoring activities, Resp Orgs capable of engaging in non-competitive behavior will exercise market power in order to profit from the subsequent resale of numbers to other Resp Orgs or End User customers.

Therefore, a decision to switch from the current "first-come, first-served" approach to an auction approach must weigh the latter's potentially negative impact on market competitiveness against

[1] Malcolm Ainspan is a regulatory and economic consultant to NRG Curtailment Solutions LLC, a Buffalo, NY-based subsidiary of NRG Energy, Inc. He holds a BA in Economics and Mathematics from Columbia University, an MBA in Finance from the University at Albany (NY), and completed his doctoral work in Economics from that institution. He has published articles in the areas of regulatory and energy economics, and has served as a discussant on several peer-reviewed articles in these areas.

the potential efficiency gains (e.g. improved valuation signals) and/or the achievement of other Commission objectives.

In the NPRM, the Commission cites two main reasons for selecting the single round sealed-bid Vickrey Auction over other auction designs such as the DCA:

- Ease of implementation resulting in lower costs to the auctioneer and participants.
- Ability to elicit true valuations from bidders, since the amount paid is not a function of a winner's bid.

The Vickrey Auction has been implemented successfully in some contexts, such as certain natural resources[2] and electricity capacity[3] applications. However, successful implementation depends on several conditions being satisfied, including:

- The items auctioned are either single items or multiple, essentially undifferentiated items.
- There are market administrators with the resources to prevent participants with market power from submitting bids inconsistent with competitive markets (e.g., strategic bidding to warehouse toll-free numbers).
- The transactions costs associated with market administration are low.
- Low level of benefits from price discovery, due to a significant amount of information already available to all bidders prior to the auction.
- Monotonically non-increasing marginal values for the good. Monotonicity exists if adding another bidder always (weakly)[4] reduces existing bidders' equilibrium profits and (weakly) increases the seller's equilibrium revenues. Bidder monotonicity formalizes the familiar property of ordinary single-item private-values auctions that increasing bidder participation can only benefit the seller.
- Bidders' payoffs are quasi-linear over the entire range of bids – a classic simplifying assumption in economics frequently proposed for spectrum auctions[5]. This assumption requires that payoffs be expressed as the value of the items received minus the payment

[2] Cramton, Peter (2009). "How Best to Auction Natural Resources", University of Maryland Working Paper, available at ftp://www.cramton.umd.edu/papers2005-2009/cramton-auctioning-natural-resources.pdf.
[3] NERA (2004). "Central Resource Adequacy Markets for PJM, NY-ISO and NE-ISO". http://www.nera.com/content/dam/nera/publications/archive1/CRAM_Report_Feb_2004.pdf.
[4] In this context, "Weak" means that equilibrium outcomes will either remain constant or change in one direction.
[5] Bichler, M. and Goeree, Jacob K. (2017). *Handbook of Spectrum Auction Design*, Cambridge University Press.

made. In particular, it requires that there is no effective budget limit to constrain the bidders and that, in a procurement auction, a buyer does not have any overall limit on its cost of procurement.

If these conditions are not satisfied, then outcomes from a Vickrey Auction are far from certain. For example, if the auction item is not a bulk commodity, then the Vickrey Auction's lack of a price discovery mechanism does not allow bidders to discover the amounts likely to be bid by others and to adjust their own bids accordingly. A Vickrey Auction would have to be modified in some manner to allow all bidders to have equal time and information access to allow bidders to re-assess their bidding strategies. The resources required to develop what would effectively be a hybrid Vickrey/"clock" auction would likely be significant, with the return on the associated investment being uncertain.

Another example is Vickrey's assumption[6] that each bidder has monotonically non-increasing marginal values, such that the aggregate demand curve comprised of their bids would have the classic downward slope displayed in economics texts. The only difference from the textbook example would be that the winning bidder pays the opportunity cost of the units won, rather than a uniform market-clearing price. The Vickrey Auction's simplifying monotonicity assumption is very sensitive to the number of bidders and their bidding behaviors, and creates opportunities for auction revenues to skyrocket or to drop to zero. The possibility of such results will create incentives for auction participants to collude and/or require the auction administrator to take out-of-market actions in order to ensure that auction revenue results do not deviate from a pre-determined range of reasonable outcomes.

The sensitivity of Vickrey Auctions to the exercise of market power is reflected in some of the strategies employed by bidders, including the formation of coalitions of losing bidders and the use of multiple bidding identities by a single bidder ("shill bidding"). If it is likely that bidders will employ these strategies, then the market administrator will need to assume a greater role in mitigating such behavior. The costs of this expanded role are difficult to determine *ex ante*.

Although it is difficult to assess how often the Vickrey Auction assumptions are violated or these strategies are employed, it appears that such outcomes may be common in practice. In addition,

[6] Vickrey, William (1961). "Counterspeculation, Auctions, and Competitive Sealed Tenders". *The Journal of Finance*. **16** (1)

the likelihood that Vickrey Auctions will yield optimal bidding is especially low if bidders have limited budgets, and is even lower if bidders are reluctant to reveal their true values. Such reluctance can occur when bidders believe that the information might leak out and adversely affect other bidders' behavior, or when they believe that other bidders may "cheat", rather than offer their true valuations. Ultimately, Vickrey Auctions could fail completely if, due to concerns over the presence of "bad" bidders, "good" bidders refrain from bidding their true valuations[7].

One solution proposed by Ausubel and Cramton[8] is to include reserve pricing to limit the maximum gain from collusion or cheating, by setting a reserve price. While reserve pricing has had some success in spectrum and electricity auctions, such interventions into a Vickrey Auction demonstrate the administrative efforts required to tailor each auction to market circumstances, in order to ensure the auction's competitiveness. Setting effective reserve prices would be especially challenging in the auctioning of 17,000 different toll free numbers, with widely different characteristics affecting their values, as discussed in the 800 Response Reply Comments.

In summary, the Vickrey Auction is an example of economic theory based on key assumptions that do not always exist in practice. Implementing such an auction without assessing the accuracy of such assumptions could easily produce a market outcome inferior to that of other auction methodologies. Therefore, it is not surprising that the Vickrey Auction is very rarely used in practice[9] [10] [11] or that in markets for goods such as spectrum bands and electricity capacity, descending-clock auctions are frequently used as an alternative[12].

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[7] Rothkopf, M. Teisberg, T.J., and Kahn, E. (1990). "Why Are Vickrey Auctions Rare?", *Journal of Political Economy* 98(1), pp. 94-109. https://www.researchgate.net/publication/24108702_Why_Are_Vickrey_Auctions_Rare

[8] Ausubel, J. and Cramton, P. (2004). "Vickrey Auctions with Reserve Pricing", Economic Theory **23**, 493-505, April 2004. http://www.cramton.umd.edu/papers1995-1999/99wp-vickrey-auctions-with-reserve-pricing.pdf

[9] McAfee, P. (1987) and McMillan, J.. "Auctions and Bidding", Journal of Economic Literature **25(2)**, pp. 639-738. http://vita.mcafee.cc/PDF/JEL.pdf.

[10] Ausubel, L. and Milgrom, P. (2004). "The Lovely but Lonely Vickrey Auction", Stanford University working paper. https://web.stanford.edu/~milgrom/publishedarticles/Lovely%20but%20Lonely%20Vickrey%20Auction-072404a.pdf

[11] It is worth noting, however, that Vickrey Auctions are an active part of research in experimental economics, particularly in estimating willingness-to-pay for consumer product attributes. See Alfnes, F. (2007). Willingness to pay versus expected consumption value in Vickrey Auctions for new experience goods. American Journal of Agricultural Economics 89: 921–931, and Alfnes, Frode. "Valuing product attributes in Vickrey auctions when

CONCLUSION

While there are many potential alternatives to the Vickrey Auction, including Descending Clock Auctions, English (Ascending Bid) Auctions, and first-price sealed-bid auction [13] the scope of these comments is not adequate to discuss the application of each to the auctioning of toll free numbers. The proper conclusion from the preceding comments is that continuing with the "first-come, first-served" approach to releasing toll free numbers would be preferable to the institution of a Vickery Auction for the 17,000 toll free numbers which were set aside during the 833 code release. At any time in the future, the Commission could still conduct an inquiry into the viability of employing other auction methodologies for code free toll release while assuring the timely release of the 833 set-aside numbers.

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market substitutes are available." European Review of Agricultural Economics 36.2 (2009): 133-149. How this experimental work will be applicable to actual markets, however, remains to be determined.

[12] Meehan, E., LaCasse, C., Kalmus, P. and Neenan, B. (2004). "Central Resource Adequacy Markets for PJM, NY-ISO, and NE-ISO – Final Report", National Economic Research Associates.
http://www.nera.com/content/dam/nera/publications/archive1/CRAM_Report_Feb_2004.pdf

[13] McAfee, Preston and McMillan, J. (1987). "Auctions and Bidding".